

138. (previously presented) The composite bone graft of claim 123, said plurality of continuous protrusions having a height of from about 0.1 mm to about 5.0 mm.

139. (previously presented) The composite bone graft of claim 134, said plurality of continuous protrusions having a height of from about 0.1 mm to about 5.0 mm.

### **REMARKS**

Claims 110-139 are pending in the application. Claim 112 has been amended to more clearly define the invention. Claim 121 has been amended to correct a grammatical error. No issues of new matter should arise and entry of the amendment is respectfully requested.

#### **I. Rejection of claim 112 under 35 U.S.C. § 103**

Claim 112 is rejected under 35 USC 103(a) as being unpatentable over Boyer (US 2001/0041941) in view of Boyce (US 6123731). The Examiner states that Boyer teaches all the limitations of claim 112 except the cortical bone portions each comprising a face complimentary to a face on an adjacent cortical bone portion, each face comprising a single projection or a single depression, such that adjacent faces are complimentary, and a single projection interlocks with a single depression, to provide an interlocking fit between said adjacent bone portions. He states that Boyce teaches tongue-and-groove features in lines 64-65 of column 5, and concludes that it would have been obvious to use the teaching of Boyce to join the cortical bone portions of Boyer.

Applicants respectfully traverse the rejection. The Boyer patent application was filed March 22, 2000, which is after the effective filing date (January 5, 1999) of the instant application. Therefore, the Boyer patent application is not prior art to the instant application.

To the extent that the Boyce patent is prior art, Boyce does not teach a composite bone graft comprising distinct, adjacent, cortical bone portions, wherein the bone graft does not comprise an adhesive and the cortical bone portions are not demineralized. Rather, the Boyce patent describes the use of an osteoimplant made up of a solid aggregate of bone-derived elements, which are bonded to each other through chemical linkages. (*See* col. 2, lines 7-12). Therefore, it requires some type of chemical linkages between the surface-exposed collagen molecules in order to facilitate the bonding of adjacent bone elements. Moreover, the context in which the tongue-and-groove features was discussed was based on an “embodiments of the osteoimplants which are assembled from relatively large bone-derived elements such as sheets, such elements can be provided with mechanically interengaging features, e.g., tongue-and-groove or mortise-and-tenon features, which facilitate their assembly into the final product and/or to fix the elements to each other in a more secured fashion.” (Col. 5, lines 61-67.) Applicants have amended claim 112 to recite distinct, adjacent, cortical bone portions that are not bonded to each other through chemical linkages. In view thereof, withdrawal of this rejection is respectfully requested.

## **II. Double Patenting**

Claims 110-116, 120/110-115, 121-132, 133/110-115 and 134-139 are rejected under the judicially created doctrine of obviousness-type double patenting over the claims of U.S. Patent No. 6,200,347.

Applicants file herewith a terminal disclaimer in view of U.S. Patent No. 6,200,347. The Commissioner is authorized to charge the disclaimer fee of \$55 in accordance with 37 CFR 1.20(d) to Deposit Account No. 08-0219. In view thereof, withdrawal of this rejection is respectfully requested.

**III. Allowable Subject Matter**

Applicants thank the Examiner for acknowledging claims 117-119, 120/117-119, 133/117, 134/133/117, 136/120/117-119 and 139/134/133/117 are allowed.

**IV. CONCLUSION**

In view of the foregoing remarks, Applicants believe that the remaining claims in the application (110-116, 120/110-115, 121-132, 133/110-115 and 134-139) are in condition for allowance. However, if the Examiner disagrees, he is encouraged to call the undersigned at the number listed below in order to expedite the prosecution of this application.

Respectfully submitted,



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